Arabidopsis bactriana Belongs to *Dielsiocharis* (Brassicaceae)

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ABSTRACT. The Tajikistan endemic *Arabidopsis bactriana* is transferred to *Dielsiocharis*, a genus previously recognized as monotypic. Detailed description of *A. bactriana* is provided, and a key distinguishing the two species of *Dielsiocharis* is given.

Key words: *Arabidopsis*, Brassicaceae, *Dielsiocharis*, Tajikistan.

During a visit to Dushanbe (Tajikistan) in 2002, the first author had the chance to examine many species of Brassicaceae at TAD. One of the species, previously placed in *Arabidopsis* (DC.) Heynhold, *A. bactriana* Ovczinnikov & Junussov, was studied critically, and the present paper deals with its proper generic placement.

Arabidopsis bactriana cannot be maintained in *Arabidopsis* because it is a pulvinate, scapose, canescent perennial with almost exclusively dendritic trichomes, leafless stems, pale yellow flowers, and non-torulose fruits. As defined by O'Kane and Al-Shehbaz (1997), *Arabidopsis* consists of annual, biennial, or non-pulvinate, non-scapose, non-canescent perennials with simple and forked (never dendritic) trichomes, leafy stems, white to lavender or rarely purple flowers, and torulose fruits.

Al-Shehbaz et al. (1999) excluded *Arabidopsis bactriana* from *Arabidopsis* and, prior to the examination of the type material, suggested that the species might belong to *Crucihimalaya* Al-Shehbaz et al. However, we now believe that the species should be assigned to *Dielsiocharis* O. E. Schulz, a genus previously recognized by Schulz (1924, 1936) and Hedge (1968) as monotypic.

In nearly all aspects of *Arabidopsis bactriana*, the species is more closely related to *Dielsiocharis kotschyi* (Boissier) O. E. Schulz (northern Iran and adjacent southern Turkmenistan) than to any other species of the Brassicaceae. Both are densely caespitose, pulvinate, tomentose, canescent, scapose perennials with almost exclusively dendritic trichomes (some simple trichomes at the petiolar base); entire, oblong, oblanceolate, or obovate, rosulate basal leaves attenuating to the petiole; leafless stems; ebracteate, few- to several-flowered racemes elongated in fruit; bright or pale yellow petals 2.5–5 mm long; linear to oblong-linear, often recurved, non-torulose, dehiscent, terete fruits; minute, entire stigmas; and oblong, uniseriate seeds with incumbent cotyledons (Hedge, 1968; Junussov, 1978).

Dielsiocharis bactriana (Ovczinnikov & Junussov) Al-Shehbaz & Junussov, comb. nov. Basionym: *Arabidopsis bactriana* Ovczinnikov & Junussov, Fl. Tajikistan 5: 626. 1975. TYPE: Tajikistan. Mt. Kugi-Frusch, calcareous ground, 2800 m, 4 July 1956, *P. N. Ovczinnikov & M. S. Lazareva 4079* (holotype, TAD; isotype, TAD).

Perennial herbs to 4 cm tall, pulvinate, scapose; caudex woody, compact, covered with persistent leaves of previous years. Leaves oblong-oblanceolate to obovate, 0.3–2 cm long, 1–3.5 mm wide, canescent, densely tomentose with stalked, dendritic trichomes, these with much longer stalks and simple along petiolar base, base attenuate or cuneate, margin entire, apex obtuse. Cauline leaves absent. Raceme ebracteate, 3- to 6-flowered, elongated in fruit. Sepals oblong, to 2 mm long, tomentose outside. Petals pale yellow, narrowly oblanceolate, 2.5–3 mm long, apex rounded. Fruiting pedicel slender, filiform, 5–10 mm long, sparsely tomentose. Ovules 34 to 40 per ovary. Fruit linear, terete, curved, not torulose, 7–15 × 0.7–1 mm; valves glabrous, midvein absent or obscure; style 0.1–0.5 mm long; stigma minute, entire. Seeds uniseriate, oblong, brown, ca. 0.7 × 0.3 mm long; cotyledons incumbent.

Dielsiocharis bactriana is known thus far only from the type collection. It is easily distinguished from *D. kotschyi* by having fewer-flowered racemes,

glabrous fruit valves, and more ovules per ovary (see key).

KEY TO THE SPECIES OF *DIELSIOCHARIS*

1a. Fruit valves glabrous; racemes 3- to 6-flowered; ovules 34 to 40 per ovary . . . . . *D. bactriana*
1b. Fruit valves pubescent; racemes 10- to 20-flowered; ovules 6 to 14 per ovary . . . . . *D. kotschyi*

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